Book of the month The Obstetrician's Armamentarium: Historical Obstetric Instruments and Their Inventors

Some years ago a Fellow of the Royal College of Obstetricians and Gynaecologists started a small collection of antique obstetric forceps and other early obstetric instruments. Before he died he set up the collection, beautifully labelled, in two showcases and it was exhibited in the Royal College of Obstetricians and Gynaecologists. The College Council one day decided that the space was needed for other purposes and a porter was told to put the instruments into cardboard boxes. He disarticulated the forceps, muddled them up, and separated them completely from their labels. The lay-secretary of the College, horrified by what had happened, telephoned me to come urgently and repair the damage. It was worse than trying to do a jigsaw puzzle without any picture to go by. After several hours I had managed to reassemble only one pair of forceps; but did not know which label should be attached. I did not even know for certain to which century the forceps belonged. So a curator from the instrument department of the Science Museum came, and after some days she and a colleague had put together several but not all the pieces of the puzzle. The lesson is that it is very difficult to assemble and authenticate even a small collection of these instruments.

Bryan Hibbard has done much more, and on a grander scale. In 1960 or thereabouts, he retrieved from storage a collection of obstetric instruments from the Department of Obstetrics and Gynaecology in the University of Liverpool, where he worked for some time. He then did the same at the Royal College of Obstetricians and Gynaecologists, completing the task not quite finished by the curators from the Science Museum; and he was soon able to add greatly to it by acquiring from the College a collection which had resided in a Manchester Cellar. He later obtained a collection from University College London, similarly neglected.

Bryan Hibbard's book *The Obstetrician's Armamentarium*¹ is not the first authoritative catalogue of obstetric instruments. There are two older ones. The second and more important is by an Indian obstetrician, Sir Kedarnath Das, first published in 1929. A facsimile edition of this illustrated catalogue was produced in 1993 under the supervision of Professor Hibbard, who made no alterations or additions to the text. An earlier one in

1887 was by A Meadows, who catalogued the collection of obstetric instruments then in the Royal College of Surgeons of England. This collection, was largely destroyed by bombing during the Second World War. Meadows' catalogue fortunately still existed, though it was not illustrated.

Hibbard's new book is fully illustrated. Some of the illustrations are the original inventors' together with their instructions on how to use the instruments. Others are photographs taken by Hibbard with the help of his wife, occasionally of a model rigged up to show the forceps in action. But the book is much more than a catalogue of instruments, because it details the history of obstetrics through the centuries. The inventors come from many countries and go back a long way. They are in many cases the important founders of our present subject. A key figure is William Smellie (1697–1763). In Smellie's day, obstructed labour was often completed by performing an internal version through the vagina, to turn the head in to the upper part of the uterus and bring the breech down. The baby was then extracted by pulling on a leg or by using breech hooks. This method caused great infant mortality, so in 1737 Smellie tried a pair of French forceps (Dusée's), that had been recommended to him by a Scottish obstetrician, Alexander Butter. Smellie not only designed several better forceps which enabled him to avoid the internal version; he also wrote textbooks and produced a very important atlas, which contains among other things illustrations and descriptions of how to apply forceps and deliver the baby (Figure 1). Like his contemporary William Hunter, he was a Scot who migrated to London. But while Hunter was a very dapper well-dressed man who attended the aristocracy, Smellie was down to earth and attended the poor. In this book, we find details of Smellie's methods of



Figure 1 Smellie's straight forceps. Changeable leather thronging covered the blades, lubricated with lard

teaching and how he himself had learnt from the great obstetricians of Paris.

The illustrations, taken from Smellie's atlas and supplemented by Hibbard's photographs, include Smellie's wooden forceps, now in the museum at the Royal College of Obstetricians and Gynaecologists. André Levret in Paris (1703–1780) was Smellie's contemporary. He became the French Royal accoucheur; but he also found time to design several types of forceps and other instruments, some of a destructive nature, such as the *tire tête* which was used to extract the baby's head after decapitation when the child had died.

Hibbard's arrangement of the chapters overcomes some of the difficulties of putting such diverse material in order, because he first describes chronological developments and then geographical variations. A whole chapter is given to the development of forceps in America. We learn about Deacon Samuel Fuller, a serge-maker by trade who became the first medical practitioner in America. He travelled to the new continent in the Mayflower, arriving in 1620 with his third wife, who was a midwife. Her name was Bridget Lee Fuller and she probably delivered three babies during their journey. The training of man-midwives was started in Philadelphia by William Shippen Ir, who was a pupil of Smellie and Hunter. He later worked in New York. Hibbard discovered this by going back to primary sources. Misuse of a pair of forceps led to one of the earliest malpractice legal suits to be brought in America.

Unfortunately not all babies could be delivered alive, particularly before the popularity of today's caesarean section. So there were instruments to destroy and then to extract dead babies. These instruments are accorded separate descriptions. Comminutors and communitor-extractors have their chapter. A communitor is a crushing instrument. This chapter, like all the others, is profusely illustrated. Other chapters describe axis-traction forceps,

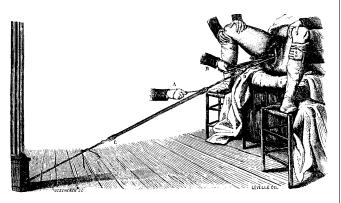


Figure 2 Delore's cord and pulling tractor. A dynamometer is interposed in the pulling system

which are often still used today. There are also illustrations of fillets, levers and other extractors (Figure 2) which did not have to destroy the baby to effect delivery. An important chapter is that on symphysiotomy and pubiotomy. It is relevant still today because, by division of the symphysis pubis, the diameters of the pelvis can be greatly increased. This procedure was used before caesarean section became popular in the western world. Today a caesarean section may be very difficult to organize in resource-poor countries.

The *Obstetrician's Armamentarium* is a special work. To read and review it has been a great joy.

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REFERENCE

1 Hibbard B. The Obstetrician's Armamentarium: Historical Obstetric Instruments and their Inventors. San Anselmo, CA: Norman Publishing, 2001 [324 pp; price \$245; ISBN 0-930405-80-3 (h/b)]. Website [www.norman publishing.com]

Anthropological Approaches to Psychological Medicine—Crossing Bridges

Editors: Vieda Skultans, John Cox

303 pp Price £14.95 ISBN 1-85302-708-1 (p/b)

London: Jessica Kingsley, 2001

The most obvious reason for studying medical anthropology is to care competently for patients from cultures other than your own, and 'transcultural psychiatry' is certainly one of the themes of Skultans and Cox's book, particularly the question of how cultural competency can be taught and assessed. For the general reader, however, this is perhaps the least interesting aspect of the work. Much is to be

learned from comparisons. We compare the healthy limb with the injured side, healthy controls with patient groups, a new treatment with an established one. Similarly we learn about our own culture by looking at others. It is the exploration of questions about the nature of mental illness and medical practice that makes the book important.

General practitioners know that diagnoses are made in psychological and social as well as physical terms, but in practice and in the International Classification of Diseases the most easily defined aspects are the physical. It is the biomedical definitions of illnesses that allow application of the ICD in every country of the world and account for its success. Psychiatry, however, differs from other branches of

medicine. The commonest problems of psychological medicine-anxiety, depression, schizophrenia-do not fit well into the biomedical model, at least at our present state of knowledge, even if we can use drugs to modify them. Other models, particularly from psychology and sociology, are at least as effective in helping us understand these disorders. The criteria for separating normal variation from illness are less clear, and the influence of cultural factors is much more obvious. Despite this, such is the dominance of western culture in medicine that patterns of mental illness tend to be seen as universal and form the basis of international psychiatric classifications. Jadhav provides an historical analysis of the development of the western concept of depression, stimulated by the difficulties of applying it in Indian cultures. This essay shows how culturally bound our modern concept of depression is, evolving from the acadia of medieval monks, through the bittersweet Renaissance melancholia, and influenced by ideas of stress, somatization and protestant guilt.

Medicine is itself an important cultural phenomenon, and three chapters focus particularly on an anthropological analysis of its structures, beliefs and practices. It is uncomfortable for us to be reminded, as Littlewood does in his chapter, of the close link between the spread of western medicine and our western imperialist past. Psychiatry, moreover, is rooted not merely in western culture but in one particular bourgeois post-Judeochristian secular humanist subculture within it. The three chapters which discuss methodological and theoretical issues in the relationship between anthropology and psychiatry are thought-provoking but possibly too abstract unless you are a medical anthropologist or a philosopher of science. The chapter that offers fewest useful insights for the clinical reader is the one that best fits the lay image of anthropology—an account of Cambodian concepts of perinatal mental disorder. Although fascinating as a phenomenon and no doubt valuable to anyone providing obstetric care to Cambodian women, its relevance does not extend much beyond that context.

The book offers not a coherent narrative but a collection of readings, the choice and order of which are unexplained. Most of the chapters raise questions rather than give answers. The material would provide excellent stimuli for discussion of the nature of mental practice. But those who seek a systematic argument, and a 'solution' to the interaction of universal biological factors (such as neurotransmitters or psychophysiological functions) and specific cultural contexts (such as religious background) in the experience and manifestations of mental illness, should look elsewhere.

Peter D Toon

The Plato of Praed Street: the Life and Times of Almroth Wright

Michael Dunnill

269 pp Price £17.50 ISBN 1-85315-477-6 (h/b)

London: RSM Press, 2000

Few medical mortals of the last century can be quite as biograph-able as Almroth Wright (1861–1947), and Michael Dunnill has done his bizarre subject proud.

Born of an Ulster protestant evangelical father and a Swedish mother (Almroth was her maiden name), Wright was brought up in an academic, violently anti-papist household. Equipped with a prodigious memory (he was thought to know a quarter of a million lines of poetry) and overwhelming arrogance, his life was never going to be mundane. At Trinity College Dublin he obtained a first in modern languages while reading medicine, and after a series of research and teaching jobs became head of pathology at Netley, a large RAMC hospital (it no longer exists) on Southampton Water. He was appointed over the head of David Bruce, who had recently described brucellosis; the two became life-long enemies. The rest of the staff did not take to Wright either.

But there was no doubting his skills as a lecturer or his grasp of the published work and at Netley he began his life's work on immunity. By the injection of dead typhoid bacteria he produced immunity to typhoid, first in himself and then in 15 soldiers. Despite the side-effects he pressed on and inoculated 2835 soldiers going to India, where typhoid was common. As far as can be seen, only 5 or 6 of them developed the disease. Unfortunately the records were appallingly kept, and Wright had a deep aversion to statistics. Karl Pearson, the leading biological mathematician of the time, said that the data showed nothing, so Wright had stand-up rows with him. The RAMC sided with Pearson. (Dunnill ascribes Wright's hatred of statistics to his home education, which included no maths.)

But at this point we realize the genius of the man. In private, Wright was a charmer, a brilliant Celtic conversationalist, who was part of the London social scene. He numbered among his friends Richard (later Lord) Haldane, the Secretary of State for War. Wright told Haldane about his typhoid vaccine: Haldane was impressed with its importance, and within a few months, Wright was Sir Almroth Wright FRS. Leishman continued with the typhoid work, and using more rigorous data collection, confirmed Wright's findings.

Meanwhile Wright was appointed Professor of Bacteriology at St Mary's Hospital. He turned the laboratory into a vaccine factory. By 1915 St Mary's had distributed 3 million doses of anti-typhoid vaccine, and it was calculated that between a quarter and half a million soldiers' lives had been

saved by its use. Wright broke new ground by financing his vaccine production in collaboration with a drug company (Parke Davis): the department shared the costs and profits with the company. The collaboration lasted about forty years, though most of the later products were vaccines for treating (not preventing) specific diseases, and because of Wright's aversion to statistics there was no evidence that these had any efficacy whatever.

Wright's second major contribution to medicine was characteristically iconoclastic. He objected strongly to the empiricism of clinicians, and during the Great War he tried to prevent the treatment of battle wounds with antiseptic solution, a Listerian tradition blindly followed by military surgeons. With Alexander Fleming he showed that these antiseptics killed the macrophages and neutrophils that were gathering at the wound, and prevented healing; furthermore, the use of antiseptic paste encouraged the growth of anaerobes, with the fatal production of tetanus or gas gangrene. Wright's (successful) approach was to clean the wound with sterile hypertonic saline and suture it secondarily. It took two or three years to overcome the old dogmas, by which time millions more lives had been lost. Would this have been achieved at all without Wright's passion and abrasiveness?

His department was, on the whole, a success, for he maintained the loyalty of such distinguished bacteriologists as Fleming and Colebrook. He sulked when Fleming was given a knighthood, and told two separate individuals (privately) that they would inherit the department when he retired. He believed that there was no place for women in medicine and was a passionate anti-suffragettist. In a debate at St Mary's, Bernard Shaw took the suffragette side and Wright the antisuffragette; Wright won the debate (but then he was playing at home). As is often quoted, Shaw based the physician in *The Doctor's Dilemma* (only happy when stimulating the phagocytes) on Wright; the two Celts were good friends, their arguments characterized by neither disputant paying the slightest attention to what the other was saying.

So it was an impossible life—that of a man who believed strongly in the scientific method (and hated contemporary physicians for their empiricism) but was, in the last analysis, a romantic who only accepted those pieces of science that suited him. Dunnill tells us all this impartially and well, but the riddle is never solved. A small point: Wright scowls at us from all the photos in the book (he clearly disliked photographers as he would have disliked lady house-surgeons); and the cover, too, has the old sour-puss glowering out. A shame, really, because it belies the fascination of what is inside.

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Injury Control—a Guide to Research and Program Evaluation

Editors: Frederick P Rivara, Peter Cummings, Thomas D Koepsell, David C Grossman, Ronald V Maier 304pp Price £60/US\$95 ISBN 0-521-66152-8 (h/b) Cambridge: Cambridge University Press, 2001

Because serious injury is still quite uncommon in the UK, research on the subject presents difficulties of design and data collection. Now that simple preventive measures such as seat belts and helmets have achieved large falls in mortality, attention is switching to other sorts of outcome. In the published work worldwide, outcome studies of high quality are few: the focus is on medical management of trauma, and psychosocial aspects of injury suffer particular neglect. For the UK, guidelines have been issued on the management of trauma and on the design of trauma systems, but there is scant evidence that these will improve outcomes. What we need is good-quality evidence, and any help that we can get in designing the necessary studies is welcome. Injury Control contains much useful guidance. The focus on injury prevention and control allows helpful reallife illustrations and the reference lists are comprehensive.

The introduction reviews the history of injury research and is followed by a comprehensive review of existing scoring and coding systems, including current drawbacks and possible ways to avoid them. Further chapters look at data collection methods and the difficulties of data presentation, with examples from the literature. The text explores the benefits and drawbacks of each method and offers advice on when and how to use them. Statistical analysis is not addressed—a pity since the rest of the coverage is so comprehensive. Several chapters deal with research methodologies, including qualitative methods and systematic reviews. Although by no means complete in the descriptions, these are well referenced and are generic enough to be helpful resumés of the important features. The brief explanations allow the reader to gather an overview and to select a method; further reading is then indicated from the references listed. Guidelines or care pathways are very much in the news and the chapter on developing clinical decision rules is a clear account of the process, including a helpful checklist. Again, this is generic enough to be of use in many areas, both in emergency care and in elective work. Trauma performance improvement can be likened to clinical governance, with a need to be continually evaluating and improving performance. The chapter on this subject is the least helpful in the book, the authors failing to link what they say to the contents of other chapters.

Although outwardly the book is about injury, its style and breadth make it valuable to many other researchers. I anticipate that it will be borrowed many times by my colleagues to get ideas and general advice. I recommend it to anyone interested in trauma and to all A&E colleagues who have £60 to spare.

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Opportunities and Options in Medical Careers

Ruth Chambers, Kay Mohanna, Steve Field 169 pp Price £17.95 ISBN 1-85775-451-4 Abingdon: Radcliffe Medical Press, 2000

This book promises well-informed careers advice—the sort of help that could win jobs and make wilting careers blossom again. As a surgical research fellow at that precarious point between the end of basic training and a specialist registrar post, I opened it with high hopes. And had I been a general practitioner in the making I would have been delighted. The three authors are general practitioners, all with substantial experience as careers counsellors, and the book reflects this special knowledge. The bias towards general practice should have been acknowledged in the title, or at least on the back cover.

The contents fall roughly into three parts-understanding what careers counselling is about, gaining insight into yourself and your goals and, finally, achieving those career goals. The opening detailed account of the differences between careers counselling, guidance and information will come as an unwelcome surprise to many readers drawn to the book by the title. Nor, if you are preoccupied with simply getting a job, will you much appreciate the early chapters that deal with assessing your potential as a career counsellor or how to set up a careers advice service. For the more established practitioners, however, these sections illustrate one way to develop a career portfolio, albeit without much practical advice. A particularly entertaining section consists of the 'typical' cases a counsellor might be faced with: Gerald, a poorly performing GP who left surgery under pressure from his wife, after failing the FRCS four times; Cathy, a high flier with an MBA who feels stifled by her partners in general practice; and Donald a glib but popular GP registrar, liked by every partner in the practice except his GP trainer. The learning notes that accompany these case scenarios are instructive.

The section that deals with gaining insight into yourself and your goals takes up the bulk of the book. It has the same strengths and weaknesses as the chapters on careers counselling. The case studies are interesting and there are several ideas to learn from. Once again, however, the authors offer little practical assistance. They cite potentially helpful personality and skills self-assessment questionnaires but do not include them. Nor do they refer to any of the abundant

data published by postgraduate deaneries and colleges on the number of applicants and posts in specialty training grades. A career path which remains the way forward for a significant minority—leaving medicine altogether—is not broached constructively. Within three years of graduation, three of my peers had left clinical medicine (the first teaches dance, the second won a gold medal at the Olympics and the third is a management consultant).

The final part, about how to achieve those newly identified goals, is the most disappointing. Only six pages are allocated to this topic on which many readers will be hoping for detailed advice. On the train down to a preinterview interview I read some of the recommendations on 'Your CV', 'Preparing for the interview', 'The big day', 'The presentation', 'Your golden opportunity' and 'Referees'—again well written and thought-provoking, but desperately short on useful detail. If general practice is not your chosen specialty, other publications will serve you better.

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Medical Appraisal, Selection and Revalidation: a Professional's Guide to Good Practice

John Gatrell, Tony White 63 pp Price $\mathfrak{L}12.95$ ISBN 1-85315-400-8 (p/b) London: RSM Press, 2001

Appraisal and revalidation will soon be part of everyday life for British doctors, but some remain unsure of what is involved, and feel threatened. Extraction of relevant facts from the numerous published sources (often jargon-ridden) can be difficult and time-consuming.

For Calman trainees there are three appraisals during each post, with a yearly in-training assessment. Failure can mean retaking the year or removal from the training programme. For those who have completed training, a revalidation folder is part of the yearly appraisal. At the end of the five-year cycle the completed folder is submitted to the revalidation group. Poor performance could lead to removal from the Medical Register.

Since appraisal and part of revalidation depend on an interview, Gatrell and White begin their book with interviewing skills—including not only the use of open, closed and probing questions but also non-verbal communication. There are useful tips here for both interviewer and interviewee. They then go on to appraisal of various grades of doctor, with a section on the folder and the structure of revalidation groups. Clearly, the collection of information required for these processes will be complex and time-consuming; questions of funding for data collection and who will be responsible have yet to be fully addressed. The final

chapter deals with the selection process. The pros and cons of application by *curriculum vitae* or special forms are discussed, and there is a section on how to short-list without bias (with examples of a scoring profile); another deals with the sorts of interview panels needed for different grades of doctor and the uncomfortable task of feedback to unsuccessful candidates.

Although not all the flow diagrams are easy to follow (or even necessary), in general the book is clear and well set out. Each chapter concludes with a summary of key points and there are references for further reading. Doctors in all specialties, on whatever side of the interview table, will find this concise book a useful source of information.

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The Pocketbook of Drug Eruptions and Interactions, 2nd edition

Jerome Z Litt

539 pp Price £17.50; US\$29.50 ISBN 1-85070-031-0 (p/b)

Carnforth: Parthenon, 2001

Dermatologists are all too familiar with the challenge presented by an ill patient on a medical or surgical ward whose condition is compounded by an extensive rash; is it a drug eruption and if so which of the patient's recent or current medications is at fault? Unravelling such a puzzle is rarely assisted by the manufacturer's data sheet, which almost inevitably lists 'rash' among a long list of potential side-effects and adverse reactions. Helpful information is indeed remarkably difficult to find. In a very few instances we now know why some people react adversely to a medication and others do not; marrow suppression from azathioprine, for example, is almost entirely confined to those who lack the enzyme thiopurine methyltransferase (which can be readily measured). Occasionally the pattern of eruption is distinctive, as in fixed drug eruption, or erythema multiforme. Sometimes a pattern of adverse reaction may be predicted; for example, since penicillamine can induce a pemphigus-like eruption we might expect the structurally related molecule captopril to do likewise.

Dr Litt's *Pocketbook*, containing as it does a comprehensive list of all the recognized forms of skin reaction to virtually every known prescription medication, together with a list for each drug of recognized interactions, is the result of a herculean amount of work. The mere fact that this is a second edition attests to the demand for information on the subject. Yet the introduction gives no indication of the intended readership; and, having studied the book, I feel none the wiser. There is no clue as to how in clinical practice one might assess the likelihood of one

drug over another being the culprit in a suspected case of drug reaction, nor is there any discussion of mechanism or time course. Interactions, whilst exhaustively listed, again are not discussed in terms of mechanism or effect (inhibition? potentiation? cross-reaction?). The definitive book on this important subject has yet to be written.

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Sir James McGrigor: The Scalpel and the Sword The Autobiography of the Father of Army

Editor: Mary McGrigor

Medicine

320 pp Price £14.99 ISBN 1-84017-035-2 (p/b)

Dalkeith: Scottish Cultural Press, 2000

James McGrigor is rightly referred to as the father of British army medicine. Purchasing his commission in the Connaught Rangers as an unqualified regimental surgeon in 1793, he then extensively campaigned in the Low Countries, Egypt, India, the West Indies, and the Iberian Peninsula. His outstanding qualities as a doctor and administrator enabled him to rise rapidly through the army hierarchy and to eventually become director general of the medical department, a post he held until 1851. His bestknown duty was as the head of the medical department in Portugal and Spain during the latter years of the Peninsular War. Here he formed a close working relationship with Wellington, who both liked and respected his senior doctor. McGrigor's achievements were many but above all he raised the status of the ordinary army doctor and introduced the routine collection of disease statistics. Under McGrigor's guidance British army doctors received their first ever mention in dispatches, after the action at Badajoz in 1812. His carefully maintained disease records were later used by statisticians to disprove many of the traditional 'miasmatic' theories of disease and to justify the introduction of crucial preventive measures such as better diet, clothing and sanitation.

Despite his eminence and honours, McGrigor was a modest and self-effacing individual. When he first submitted his article on the medicine of the 1801 Egyptian campaign for publication, he expressed reservations about his writing skills. His later autobiography, published in 1861, is the work of an accomplished author. He emphasizes his medical duties but we also have much detail of the war itself. The enormous breadth of McGrigor's campaigning makes this a unique account of the military medicine of the era. Except at Waterloo, he appears always to have been in the midst of the action. He is more reticent about his personal life and we learn less about the private man. Mary McGrigor, the

wife of a McGrigor descendent, has edited his autobiography with a light touch. Sir James is allowed to speak for himself, which is as it should be. She has contributed an introduction, explanatory notes and references, some extracts from McGrigor's campaign journal, and a few appendices. The introduction focuses on his formative years in Aberdeen. It is helpful, although a little strong on Scottish local history and genealogy for the average reader. No doubt this reflects the interests of the editor and her publisher. The explanatory notes are appropriate but there are occasional errors—for instance, the arch critic of the army medical board, Dr Robert Jackson, hit the Surgeon General Thomas Keate with his cane, not the Physician General Lucas Pepys as stated. The insertion of McGrigor's journal extracts into the text works admirably, both improving the continuity of the autobiography and adding the sharper perspective of contemporary comments. The appendices are well chosen, the abridged version of McGrigor's account of the plague and ophthalmia-afflicted Egyptian campaign being especially welcome. The book is nicely produced in softback format with a few pertinent black and white illustrations and maps. There are a handful of typographical errors.

I can personally vouch that, even in these days of internet search engines, finding a copy of the original 1861 version is extremely difficult. Mary McGrigor and her publisher are to be applauded for making this seminal work of British military medicine again easily available after an interval of 140 years. Those who enjoy McGrigor's own account of his life might wish to read Richard Blanco's excellent biography (James McGrigor: Wellington's Surgeon General, Duke University Press, 1974) which contains an unparalleled bibliography of the army medicine of the period.

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